

GILA RIVER BASIN

09512970 COTTONWOOD CREEK NEAR WADDELL DAM, AZ

LOCATION.--Lat 33°53'55", long 112°18'39", in SW¹/₄SW¹/₄SE¹/₄ sec.36, T.7 N., R.1 W., Yavapai County, Hydrologic Unit 15070102, on left bank 4 mi northwest of Waddell Dam and 1 mi upstream from the mouth at Lake Pleasant.

DRAINAGE AREA.--9.28 mi².

PERIOD OF RECORD.--May 1983 to March 1993 (discontinued).

REVISED RECORDS.--WDR AZ-86-1: 1983(M). WDR AZ-89-1: 1985(M).

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 1,660 ft above sea level, from topographic map. Prior to Jan. 11, 1991, at datum 0.33 ft lower.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,750 ft³/s, Aug. 22, 1992, gage height 7.33 ft, from rating curve extended above 40 ft³/s on basis of slope-area measurement at gage height 5.80 ft; no flow for many days each year.

Annual peak discharges

Water year	Date	Annual peak discharge (ft ³ /s)	Discharge codes	Water year	Date	Annual peak discharge (ft ³ /s)	Discharge codes
1983	09-23-83	43		1989	08-15-89	37	
1984	07-21-84	2.8		1990	08-14-90	1,250	
1985	12-28-84	12		1991	02-28-91	564	
1986	11-26-85	35		1992	08-22-92	1,750	
1987	10-11-86	41		1993	02-09-93	912	
1988	08-21-88	1,160					

Discharge rating table developed January 1991

Gage height (ft)	Discharge (ft ³ /s)	Gage height (ft)	Discharge (ft ³ /s)
3.0	179	8.0	2,110
4.0	416	9.0	2,700
5.0	731	10.0	3,360
6.0	1,120	11.0	4,070
7.0	1,580	11.4	4,380

Magnitude and probability of instantaneous peak flow based on period of record 1984-92

Discharge, in ft ³ /s, for indicated recurrence interval in years, and exceedance probability, in percent					
2	5	10	25	50†	100†
50%	20%	10%	4%	2%	1%
131	804	2,020	5,240	9,600	16,400
Weighted skew	(logs) =	-0.15			
Mean	(logs) =	2.09			
Standard dev.	(logs) =	0.96			

† Reliability of values in column is uncertain, and potential errors are large.

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